

PSEUDOSCORPIONS (MICROCREAGRIS) OF JAPAN

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THREE FIGURES

(Received Sept. 3, 1928)

Pseudoscorpions belonging to *Microcreagris* Balzan, 1891¹ (Family Ideobisiidæ, Subfamily Microcreagrinæ), a genus which is strictly confined to Asiatic countries (Birma, China and Japan), were collected by Hans Sauter from Japan proper in 1904 and 1905, and from Formosa in about 1910. They were also mentioned twice by Ellingsen (1907 and 1912).

My collection of chelifers includes at present all the Japanese species of the genus hitherto described by Ellingsen. It also contains all those forms obtained in Formosa as well as around the skirts of Mt. Fuji. I have also a single but very interesting specimen of the genus which Mr. H. Niwa of Nagoya obtained from Central Honshiu and kindly submitted to me to describe. Here I list five species of the genus from Japan.

In collecting the specimens about Mt. Fuji, the author is indebted to the kind help by Prof. N. Yatsu, to whom and also to Mr. Niwa, his hearty thanks are due.

Key to Chinese and Japanese species of the genus *Microcreagris*.

- A Pedipalpal femur quite smooth.
- B Frontal margin of the carapace with a single epistome-like tooth.

1 Genus *Microcreagris* Balzan, Ann. Soc. Entomol. Fr., tome 60, p. 543. Genotype: *M. gigas* Balzan from Peking, China (T. C. p. 544, pl. 12, fig. 34).

- C Carapace as long as broad. Cheliceral spinneret with only some small teeth at the extremity. *gigas*
- CC Carapace scarcely longer than broad. Cheliceral spinneret with serrated branches. . . . *japonica*
- BB Frontal margin of the carapace normal, without epistome-like tooth, which is scarcely longer than broad. Cheliceral spinneret with compound branches. . . *cyclica*
- AA Pedipalpal femur distinctly granulate.
 - B Pedipalpal femur robust, tibia subglobose, cheliceral spinneret with two dentated branches springed at the middle.
 - C Branches of spinneret distinctly dentate . *granulata*
 - CC Branches of spinneret scarcely dentate . *formosana*
 - BB Pedipalpal femur slender, tibia elongate. Cheliceral spinneret divided nearly from its base into four simple stylets to form a fan-like body *pygmaea*

1. *Microcreagris japonica* Ellingsen, 1907

1907. *Microcreagris gigas* Balzan var. *japonica* Ellingsen, Nyt. Mag. Naturv. Christiana, Bd. 35, pp. 6, 7. (Yamanaka, Shizuoka-ken; Okayama; Ooyama, Kanagawa-ken; Kuonji, Yamanashi-ken).

1915. *Microcreagris gigas japonica* Kishida, Science, Kyoto, vol. 5, no. 9, p. 367 (Japan).

Localities. I have obtained several specimens of this form from Aokigahara and Yamanaka-mura of Yamanashi-ken as well as from Subashiri-mura, Shizuoka-ken, in 1925 and 1926. Although they are immature but easily distinguished by the facts that their cephalothorax is constantly somewhat longer than wide and that the pedipalps are with the exception of shagreened hands nearly smooth.

Ellingsen's materials were those from Takakiyama, Ooyama, Kuonji (not Kuenji) and Okayama.

2. *Microcreagris cyclica* Kishida, nov. sp.
(fig. 1, 2)

The holotype is a subadult female, measuring about 2.5 mm. in length. This is collected at Shimono, Fukuoka-mura, Enagori, Gifu-ken by Mr. Hisashi Niwa on October 20, 1927, and is now preserved in his collection as an alcoholic specimen.

Color. The carapace is dark reddish brown, but provided with a pale transverse band near the basal border. The pedipalpi and chelicerae are with the exception of the pale spinnerets, also reddish brown. The legs are slightly yellowish brown.

The carapace is longer than broad, convex, smooth and glossy. It may, however, also be minutely shagreened along the basal border as well as on the slope of the sides. There is a faint transverse depression in the pale colored part near the hind margin. The lateral borders are nearly parallel up to the eyes, in front of which the carapace is somewhat narrowed. The apical border is somewhat oblique from the middle, where it is devoid of the epistome-like tooth.

The eyes are four in number, large and placed in pairs on each side, near each other. The anterior eye of each side is apart more than a diameter from the antero-lateral angle of the carapace.

The chelicerae are very robust, provided with sensory setae of four pairs in number. On the cutting edge of the immobile segment, there are about 7 to 9 teeth and along the opposite edge about 9 teeth.

The spinnerets are stout, dichotomously branched in the middle. The upper branch is also dichotomously divided into two

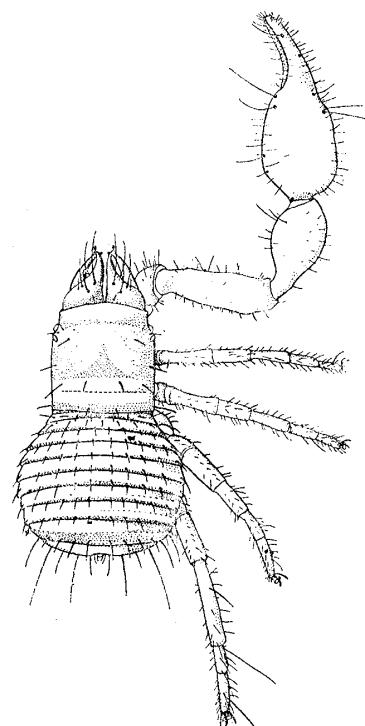


Fig. 1 *Microcreagris cyclica* Kishida,
n. sp. from Gifu-ken, Honshu.
Camera drawing.

branchlets, which is again divided into two stemlets. The lower branch is, on the contrary, five-dentate at the distal margin, where it conspicuously forms an expanded fan-like body. This new species is very remarkable in the respect.

The serrula of the mobile digit is free at its distal one third and on the whole, the teeth are curiously geniculated in the middle, thus approaching the lower side of the cutting edge of the immobile segment.

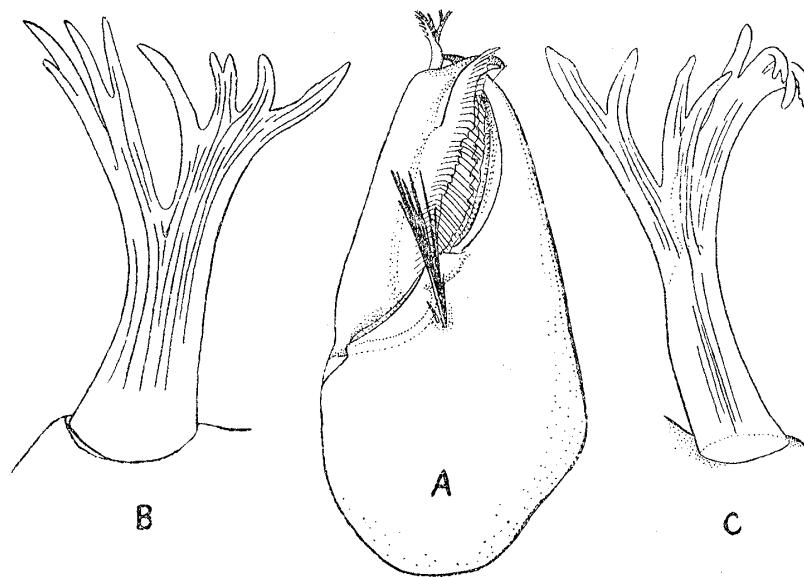


Fig. 2 *Microcreagris cyclica* Kishida, n. sp. A. Right chelicera. B, C. Spinning stylets of right chelicera. Camera drawings.

The flagella on the lower middle of the immobile segment are simple but conspicuous, being each composed of eight setæ, of which about two are very shorter than the rest.

The pedipalpalpi are robust and glossy. The coxae are sub-square in contour, smooth and nearly hairless. The trochanters are also smooth. The femurs are not granulate at all on all sides. They are also devoid of the basal stalk.

The tibiæ are globose but furnished with a long robust basal stalk. The hands are also furnished with a basal stalks, but which are very short and robust.

The fingers are scarcely longer than the immobile segment but subequal in length as the fixed part of them.

The first, second and third pairs of the legs are subequal in length, but they differ in thickness: the most slender is the first pair, the third being the heaviest. Their femora are, with the exception of those of the third pair, devoid of the pseudoarticulation that indicates the end of the trochantine and the beginning of the main part of the femur.

The fourth pair of legs are the longest of all.

The terminal claws are simple and feebly curved.

The sucker is shortly stalked but provided with a vast sized ampulla.

The abdomen are very short, nearly circular in outline, scarcely longer than broad, and furnished with a single transverse row of long stiff setæ on the hinder part of the penultimate segment as well as along the posterior borders.

The anal somite is very short, subconical in the dorsal or lateral view, glossy and not shagreened.

Remarks. This new pseudoscorpion is very distinct in the characters of cheliceral spinnerets, pedipalpi and the abdomen. The differences from other known types are truly specific. The specific name of *cyclica* is given in order to indicate the special shape of its abdomen.

3. *Microcreagris granulata* Ellingsen, 1907

1907. *Microcreagris granulata* Ellingsen, Nyt. Mag. Naturv. Christiania, Bd. 45, pp. 7-9. (Yamanaka, Shizuoka, Japan)
 1915. *Microcreagris granulata*, Kishida, Science, Kyoto, vol. 5, p. 367, B. (Japan).

Localities. A single young female was obtained by Mr. T. Takada, in Subashiri-mura (eastern skirts of Mt. Fuji), Shizuokaken. Ellingsen's specimens are eleven in number, all being from Yamanaka on the western declivity of Mt. Hakone.

4. *Microcreagris formosana* Ellingsen, 1912

1912. *Microcreagris granulata* Ellingsen, var. *formosana* Ellingsen, Nyt. Mag. Naturv. Christiania, Bd. 50, pp. 127, 128, (Takao, Formosa).

1920. *Microcreagris formosana*, Kishida, On a pseudoscorpion from Formosa, pp. 3, 4.

Localities. I have now three adult females: one from Kelung, northern Formosa, and two from Mt. Arisan, Central Formosa. Ellingsen (1912. p. 128), who examined more than 50 specimens from Takao, S. Formosa, notes on the form as follows.

"This (Formosan species) is somewhat smaller than (*Microcreagris granulata*) from Japan, about 2 mm. long, but seems to be adult. The granulation of the (pedipalps) is less pronounced, the galea more simple, having only some minute teeth in the distal part in the case of the female; (but) in the male it is of smaller size, with no teeth."

It hardly need to add more to his description.

5. *Microcreagris pygmaea*
Ellingsen, 1907 (fig. 3)

1907. *Microcreagris pygmaea* Ellingsen, Nyt. Mag. Naturv. Christiania, Bd. 45, pp. 9, 10. (Yamanaka, Shizuoka-ken, Japan).
1915. *Microcreagris pygmaea*, Kishida, Science, Kyoto, Vol. 5, p. 367, B. (Japan).

Localities. I have now altogether ten specimens of this pygmy chelifer: some were obtained from Aokigahara, Yamanashi-ken, the rest being from Kamiide, Shizuoka-ken at the foot of Mt. Fuji and from Fukuoka-mura, Enagori, Gifu-ken. Ellingsen's materials were all from Yamanaka-mura, northern skirts of Mt. Fuji.

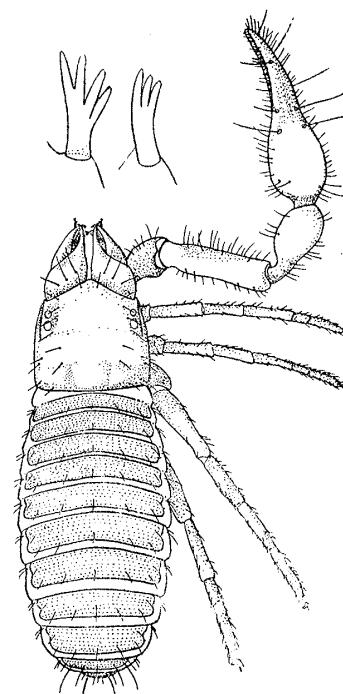


Fig. 3 *Microcreagris pygmaea* Ellingsen, 1907 from Gifu-ken, Honshu. Camera drawing. Two upper figures show its spinning stylets of right chelicera.

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